April 25, 1949.

Dear Aaron,

I am enclosing five cultures of double mutants of K-12 requiring various amino acids as follows:

W-820	histidine;	methionine & lysine
821	"	isoleuc & valine
826	"	glycine or serine
828	" ;	glutamic or proline
836	methionine & lysine;	tryptophane

The only known differences from wild type are those indicated. I have a number of derived stocks with various fermentative markers, and also a few more mutants you might be interested in, but these ought to keep you busy until we see you.

On W-518 (K-12 sans lambda) p20 and p20a show about the same differences you described on B, perhaps a little more accentuated. These phages, as I mentioned are blockaded by lambda, but the mutant p21 is indistinguishable by cross-reactions from T6. Neither p20, p20a, nor p21 forms plaques on B/6, although I haven't exhausted the possibility of selecting for host range mutants. The lambda situation is getting very much more confusing. I've succeeded in getting about ½ 2-3% yield of lambda-disinfecteds from W-1 with UV, but none of them are now susceptible to lambda, as far as visible lysis goes, although most of them are susceptible to p20. There may be genetic factors distinguishing W-1 from W-87 (the immediate progenitor of W-518) which determine whether a lytic reaction will be seen when the disinfected culture is reexposed to lambda.

W-1 is $p20^r$

I can't help you on maintaining viability of saline suspensions. I had the impression that it was better than you report-- except I haven't often incubated them. I am fairly sure that you will maintain quite high viability of concentrated suspensions kept at room temp. or the refrigerator. Wouldn't this suit your purpose?

Can't we cut out this "regards" stuff?

Best regards,